



North West Water Authority

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18th October, 1976.

To: Members of the Lune, Wyre & Furness
Fisheries Advisory Committee
(Messrs. J. M. Croft (Chairman);
W. Bailey; R. Barratt; R. A. Challenor;
Major N. J. Clarkson Webb; Dr. J. V. Dyer;
J. H. Fell; A. L. Harris; L. Hill;
G. A. Martin; J. Taylor; G. Wilson; and
the Chairman of the Authority (P. J. Liddell);
and the Chairman of the Regional Fisheries
Advisory Committee (J. R. S. Watson)
(ex officio)).

LOCAL

Dear Sir,

A meeting of the LUNE, WYRE AND FURNESS FISHERIES ADVISORY COMMITTEE will be held at 2.30 p.m. on MONDAY, 25TH OCTOBER, 1976, at the SOUTH CUMBRIA AREA OFFICE of the RIVERS DIVISION, "BEATHWAITE", LEVENS, KENDAL, for the consideration of the following business.

Yours faithfully,

G. W. SHAW,

Director of Administration

A G E N D A

1. Appointment of Chairman.
2. Apologies for Absence.
3. Minutes of the last meeting (previously circulated).
4. Fish stocking by the Authority.
5. Drought Situation.
6. Proposed re-alignment of the A.590.
7. Review of net Limitation Order.
8. Fisheries in the ownership of the Authority.
9. Report by Area Fisheries Officer on fisheries activities.
10. Fish mortality - River Conder - Prosecution of offender.
11. Perch mortalities - Windermere.
12. Any Other Business.

NORTH WEST WATER AUTHORITYLUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE25TH OCTOBER, 1976FISH STOCKING BY THE AUTHORITY1. Introduction

From time to time, at meetings of Fisheries Advisory Committees, members have enquired about policy in relation to trout stocking by the Authority.

Examination of this question on a regional basis has resulted in the production of this paper, which covers stocking not only with trout but with freshwater fish, and which puts forward proposals for Authority policy in relation to such work when undertaken by the Authority.

In considering what attitude the Authority should take on the question of stocking, and what policy it should adopt, it may be useful to consider the background to the need for stocking.

2. Background

Over the past 25 years, fishing pressure on public, club and association water has increased enormously. In the case of coarse fisheries, this has had relatively little impact upon stocks, as fish are almost invariably returned to the water at the end of a fishing session. In the case of trout, however, which, like salmon and sea trout, are normally taken for consumption or sale (and rising values have probably tended to make the latter use increasingly attractive), it appears that, on many waters, stocks have decreased, in some cases alarmingly, so that, increasingly, anglers have had to depend upon stocking to maintain their sport. There are, of course, exceptions to this situation where careful management, limitation of fishing effort or strictly enforced bag limits - or a combination of all three - has maintained the stock at a level capable of meeting the demands placed upon it. This position is more readily attained on enclosed waters, and many of the existing still-water fisheries in Britain are good examples of what may be achieved. On such waters, stocking with takeable trout up to a considerable size is carried on throughout the season and an annual 'take' of as much as 75% of the fish introduced has been recorded. On rivers, however, such work is complicated, and its effectiveness reduced, by the fact that there is nothing to prevent introduced fish from moving away, usually downstream, from the area into which they were released. The direct value of stocking to an individual club or owner is thus arguable, and if a Water Authority is carrying out all or part of the stocking, the desirability of financing work of such dubious value from public funds could be called in question. At the same time, work of this kind has a disproportionately high public relations value. If a Water Authority supplies fish for stocking a club water, members feel that they are "getting something for their licence fee", and that their fishery is being improved (whether or not this is true) - despite the fact that the licence fee, which is intended to contribute to the cost of many activities besides stocking, represents the cost today of only five 10" trout, and there must be few serious trout anglers who do not catch more fish than that in the course of a season.

3. Difficulties of Former River Authorities

Even in the time of the former River Authorities, when the areas of individual Authorities were much smaller than those of the Regional Water Authorities, problems arose over the question of stocking by an Authority. A number of different clubs and associations - apart from individual riparian owners - might have lengths of fishing on a particular river, and on a large river the number of such different interests could be considerable. If, as part of some annual stocking programme, trout or coarse fish, according to the nature of the water, were introduced by an Authority into the waters of some clubs, but not into those of others, the latter usually felt that they had been discriminated against - and did not hesitate to say so. The limiting factor in any work of this kind was usually a financial one, which some Authorities tried to overcome, so far as trout were concerned, by operating their own fish farms. This arrangement, while certainly convenient, was not necessarily a true economy, since costs tended to be concealed within the Authority's finances. Coarse fish were usually obtained by netting or electro-fishing on waters where the owner wished to have their numbers reduced, e.g. an over-stocked lake, or waters managed as trout fisheries.

When it is remembered that, in 1975 for example, trout introduced by clubs and individuals in the area of the former Lancashire River Authority alone totalled more than 70,000, the scale on which stocking with these fish is carried out will be appreciated. With the emphasis on stocking, principally with takeable trout, the cost last year was probably in the region of £30,000. Assuming rather less stocking in the former Cumberland River Authority area, and considerably less in the former Mersey and Weaver River Authority area, the total cost last year of introduced trout may, nevertheless, have exceeded £50,000 for the Region. For the Authority to accept responsibility, as has been suggested in some quarters, for all or the major part of, trout stocking is clearly impracticable on financial grounds alone. How then, could the problem be approached?

4. Migratory Fish

In the case of migratory fish, the rearing and introduction of young fish into suitable river systems is justified on the grounds that returning adults are available to be taken by netsmen (if any) and by anglers throughout the greater part of the river's length. Any work aimed at improving the runs of these fish entering the river is thus of benefit to the fisheries of the river as a whole - with the possible exception of the upper waters to which fish may not penetrate until after the end of the fishing season, and then only to spawn.

5. Non-migratory Trout and Coarse Fish

Where non-migratory trout or coarse fish are concerned, the position is entirely different since the benefit (if any) accruing from their introduction is necessarily a local one. However, in view of the Authority's statutory responsibilities for fisheries, it may reasonably be assumed that the carrying out by the Authority of a certain amount of stocking work is a legitimate and necessary part of its fisheries activities. The salient questions relate to the scope of this activity, the financing of it, the identification

of waters which should properly be stocked and the source of the fish with which to carry out the stocking. These points are discussed below in relation to situations in which stocking might be considered.

(i) Stocking after Pollution

Restoration of a fishery after the occurrence of a fish mortality, which can be attributed solely to pollution from the Authority's activities, is clearly a responsibility which should be accepted in full by the Authority. The obtaining of the necessary fish - be they trout or coarse fish - and their introduction into the water should be undertaken by the Fisheries Department of the Rivers Division.

Other fish mortalities will occur from time to time as a result of pollutions, the blame for which cannot readily be attributed to a particular source. In such cases allocation of responsibility is often a lengthy process and in some instances, indeed, is never achieved. Thus the owners or tenants of fisheries are all too often the only losers. If there is a clear cut court case where the polluter is prosecuted and a conviction obtained, there are firm grounds on which a claim for compensation by owner or tenant can be based. In these circumstances, any move by the Authority to re-stock the affected water, in collaboration with owner or tenant, on the basis that the re-stocking is carried out without prejudice to any right of recovery from the convicted polluter, can help to produce early restoration of the fishery. A re-stocking arrangement, however, necessarily involves inclusion in the Fisheries budget of a provision to meet this possible cost which may, or may not, be utilised during the year.

(ii) Stocking of Authority's Own Waters

The Authority currently manages a small number of fisheries of its own on rivers and rather more fisheries on its own reservoirs. These fisheries are usually operated on a permit basis and, where there is any significant fishing pressure on the water, stocking - particularly with trout - is required. In the case of the Authority's river fisheries which are on waters which are primarily game fish waters, stocking with coarse fish, in addition to the stocks which exist naturally in these waters, is unacceptable.

In the case of reservoirs, where natural spawning grounds for trout are either limited or non-existent, stocking is likely to be the only means of maintaining the fishery, and may have to be not only quite extensive, but spread out over the fishing season to ensure that the stock in the water is not unduly depleted well before the end of the season.

As manager of a fishery, the Authority has a responsibility to ensure that it offers to its permit-holders a reasonable potential for satisfactory sport. On a large, lightly-fished water such as Haweswater, the natural stock will probably be adequate to achieve this for some time ahead. On smaller and more intensively fished waters, such as the river fisheries and reservoirs at Longdendale and Rivington, only regular introduction of fish can maintain an acceptable level of stock, and such work should carry considerable priority. The cost of stocking should be met from the funds of the Division managing the fishery, but the Fisheries Department of the Rivers Division should advise on stocking levels, etc.

(iii) Stocking of Waters Generally within the Region

The extent - if any - to which the Authority should accept responsibility (beyond that suggested in (i) above) for stocking waters which it does not manage or control is a difficult one. On the one hand, if full responsibility were to be accepted, the Authority would be likely, as is indicated earlier in this paper, to be accepting a financial commitment disproportionately large in relation to that involved in carrying out its other fisheries functions. On the other hand, if no stocking at all is carried out, it could be contended that the Authority was neglecting its statutory responsibilities for the maintenance and improvement of fisheries. A further complication could arise if the Authority were to set up its own fish farms in order to supply substantial numbers of fish for general stocking.

From replies received to a letter recently sent to Regional Fisheries Officers of other Water Authorities it is clear that they are taking considerable care, in the distribution of any fish produced in their own farms, to ensure that the allegation cannot be made against them that they are in direct competition with commercial fish farmers. Fish from Authority-owned farms are used almost entirely for stocking Authorities' own waters, mainly reservoirs, and only relatively small surpluses are sold to the public either for stocking or for human consumption. It is clear that the supply of fish for stocking club, association and private waters is generally regarded as the field of the commercial fish farmer.

This is not to say, however, that the Authority might not make some general contribution in the field of stocking. It would be possible to hatch and rear trout and to release them as fed fry or fingerlings into tributary streams for the general benefit of the river system concerned, in much the same way that salmon and sea trout fry are reared and released. The drawback to such a scheme, however, lies in the fact that few tributaries do not already contain, or give access to, natural spawning trout, and thus carry their own juvenile populations. Unless these are well below the carrying capacity of the water - a point which is usually very difficult to assess - the addition of further young fish can only produce imbalance between stock, living space and food, and may result in substantial fry mortality.

On a much smaller scale, trout removed in the course of preparing nursery streams for the release of salmon and sea trout fry can be re-distributed to fishing areas. However, the numbers involved are unlikely to be sufficient to do more than relatively small local stocking, and perhaps to cause friction with clubs who have not received an allocation of fish. Despite this problem, however, there seems no reason why fish from this source should not be distributed in the area where they are obtained, provided that the owner of the water from which they are removed has no objection.

There will always be occasions when it may be desirable, as part of some survey or investigation, to release considerable numbers of trout or coarse fish into a water, probably with a dye mark or other means of identification on them, and such action is clearly well within the Authority's statutory powers.

6. Stocking with Coarse Fish

Much controversy has long existed over the merits and demerits of coarse fish stocking. By reason of their fecundity, and environmental requirements for spawning, together with the fact that, when caught, they are not normally removed permanently from the water; given a reasonably suitable habitat, coarse fish can quickly build up a large, self-supporting population, particularly in still or slow-flowing waters.

It has long been held by many anglers that the best cure for poor or deteriorating fishing results is to re-stock. In fact, under these conditions, re-stocking can sometimes be damaging to a fishery as when, for example, over-population or disease is the cause of the decline. Equally, however, stocking can be important to the success of a fishery as in the case of a new water or the introduction of a species which is absent from the water, apart from restoration of a fishery after pollution - probably the most frequent situation and one which genuinely requires stocking to be carried out.

Coarse fish for stocking can be obtained, at a cost usually considerably greater than that of trout, from a very limited number of suppliers. An alternative source is pools in which natural breeding takes place, the stocks being netted out as required, leaving mature fish to continue breeding. Efforts are being made to establish a number of these pools in the predominantly coarse fishing areas. In view of the restricted commercial supplies of coarse fish in relation to the demand which exists for them, it appears unlikely that the use by the Authority of coarse fish stock pools to help to supply the needs of clubs will lead, at any rate in the foreseeable future, to conflict with commercial interests, particularly in view of the near-impossibility of obtaining any supplies from the Continent, where such fish are more readily available, by reason of import restrictions imposed by the Ministry of Agriculture, Fisheries and Food in the interests of control of the spread of fish disease to this country.

7. Summary and Recommendations

As future policy, therefore, it is recommended that:-

- (a) The Authority should be free to undertake restocking in order to restore a fishery, destroyed or damaged by pollution from a sewage treatment works or other installation operated by the Authority.
- (b) The Authority stock, as necessary, waters including reservoirs which it owns or leases, where fishing is made available on permit to the public.
- (c) In order to meet the commitments at (a) and (b) above, the Authority should be able to buy from commercial sources, to use existing facilities, or to set up new facilities as may be considered most effective and convenient for the purpose.
- (d) In the case of coarse fish, once facilities have been established, the Authority should be free to supply fish to clubs for restocking their waters.
- (e) On waters other than those which they own or control, the Authority at its own discretion, and with the prior consent of the owners, carry out any stocking which may appear necessary for the maintenance, improvement and development of fisheries, and in doing so, should be free to obtain fish for that purpose from whatever source may appear most suitable.
- (f) The question of charging for the supply of fish should be considered on its merits in each case and any charge made should be broadly in line with current market prices for the fish involved.

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE

25TH OCTOBER, 1976

DROUGHT SITUATION

1. At a result of the drought situation prevailing this summer, the Government decided that additional statutory powers were required to assist Water Authorities in water conservation, and in consequence the Drought Act, 1976, was passed on 6th August, 1976.
2. The Act enables Water Authorities to apply to the Minister for Drought Orders to prohibit or limit prescribed uses of water, vary compensation water provisions and supply water by stand-pipes or water tanks.
3. Because of the situation prevailing in the Authority's Area application was made for an Order to cover the whole of the North West Region, resulting in the granting of the North West Water Authority (Prescribed Uses) (Drought) Order, 1976, which came into operation on 17th September, 1976. Members will be familiar with details of the prohibitions imposed by the Order which have in fact now been lifted.
4. In addition to these prohibitions applications have been made for Orders under Section 1(3)(e) of the Act, authorising reduction of compensation water or variations of similar requirements as set out in the Appendix hereto.

DROUGHT SITUATION

Waters in the Lune, Wyre and Furness area in respect of which applications have been made to the Secretary of State for Orders under Section 1 of the Drought Act, 1976, to reduce prescribed flows in rivers or to reduce the quantity of compensation water from reservoirs.

1. Windermere

At the present time the Authority are authorised by the Manchester (Ullswater and Windermere) Water Order, 1966, to abstract water from Windermere at their Calgarth Pumping Station, provided that no water shall be taken in any day during the months of October to April inclusive if the flow in the River Leven at Newby Bridge on the preceding day was less than 30 million gallons.

The quantity the Authority are authorised to abstract is not more than 45 million gallons per day provided that the quantity abstracted in any period of 12 consecutive months shall not exceed 8,030 million gallons.

The application was to modify temporarily these restrictions and to authorise the Authority as follows:-

- (1) To abstract up to 45 million gallons per day provided the flow in the River Leven is not less than 7.5 million gallons per day.
- (2) To release from Windermere into the River Leven sufficient water to maintain a continuous flow of at least 7.5 million gallons per day provided that the level of water immediately upstream of Newby Bridge Weir shall not be lowered by such releases to less than 126.0 feet above ordnance datum (Liverpool).
- (3) To disregard the overall limitation of 8,030 million gallons in any period of 12 consecutive months in respect of all water abstracted during the period of the Order.

This Order came into force on 14th October, 1976, after a Public Inquiry at Windermere on 28th and 29th September, but in accordance with the compromise agreement made with the objectors at the Inquiry also contains a requirement for the Authority to cease pumping after 31st January, 1977, if the lake level falls below 128 feet A.O.D.

2. River Duddon

This application, which was subsequently withdrawn, would have enabled the Authority to suspend the existing conditions of abstraction and to replace them by one condition requiring the Authority to maintain a continuous flow of 3.25 million gallons per day in the River Duddon measured at the flow measuring station at Duddon Hall and not at their intake as at present.

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE

25TH OCTOBER, 1976

PROPOSED RE-ALIGNMENT OF THE A.590

1. At the last meeting of the Regional Committee held on 19th July, 1976, it was resolved (Minute No. 4(e)(3)) that a report be submitted to this Committee concerning the effect of the reconstruction of the A.590 on rivers in the area, together with the Fisheries Officers' comments. The two principal areas of interest are at Greenodd and Newby Bridge. The proposals for the Greenodd section were received from the Road Construction Unit of the Department of the Environment in October, 1975, and the Newby Bridge proposals in March, 1976.

Greenodd

2. The proposal is to link the existing road from a point north of Legbarrow Point with the dual section south of Greenodd village. The RCU had considered embankment, tunnel and bridge schemes and the Authority's Officers were of the opinion that the embankment scheme would have the minimum effect on river regime. It was apparent that there would be some small changes but these were not likely to cause erosion or siltation problems, nor harm to fisheries interests. Following the initial discussions some re-alignment of the route was agreed in order to minimise the impact on land drainage.
3. In considering the fishery aspects of the scheme the Area Fisheries Officer consulted and sought agreement from the Holker Estates and other fishery owners on the River Crake. It was agreed that the route chosen would not materially affect fisheries but there could be pollution problems at the construction stage. The Officers agreed that with appropriate liaison arrangements with the RCU and Contractors, and by safe-guarding conditions in the Contract documents, any such effects could be reduced to a minimum. The Officers had no further comments to make when final details of the scheme were submitted in September, 1976.

Newby Bridge

4. Four possible routes for the A.590 at Newby Bridge were submitted to the Authority for comment in March 1976. The object of the schemes was to re-align the road from a point on the Lindale side of the junction with the A.592 to Windermere and the improvement already carried out to the west (Drawings and details of the schemes will be available at the meeting). There was no preferred route from a land drainage aspect, but from a water resources point of view the "blue" scheme was less acceptable than others. The Area Fisheries Officer was concerned regarding the effect on Miller Beck, an important spawning stream, and considered that the long culverts, which were a feature of the "green" and "blue" schemes were undesirable. These schemes and the "red" scheme also included a proposal to cut off the channel at the back of Kidhaw Island, and this was felt to be unsatisfactory. The RCU were informed that the "yellow" scheme would be the preferred route but further investigation of the detailed proposals would have to be made when these were available. No further information has been received to date but the Committee will be kept informed if there are any developments which appear to be detrimental to fishery interests.

Having regard to the problems which arose during the construction of the North-South Gas Pipeline and the re-construction of the A,66 trunk road, an additional member of staff has been appointed in the Water Quality Department in order to ensure that appropriate liaison is made with promoting Authorities during the construction periods of future works in order that pollution problems are minimised. This officer will take up his duties early in November, and will be responsible for any works carried out on the A.590.

NORTH WEST WATER AUTHORITYLUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE25TH OCTOBER, 1976REVIEW OF NET LIMITATION ORDER

1. Under existing legislation, all forms of netting on the Lune are controlled by a Net Limitation Order made under the Salmon and Freshwater Fisheries Act, 1923, which came into force in 1957. This Order restricts netting to:-

12 Drift Nets
46 Haaf Nets
3 Draft Nets

2. In recent years, with substantially reduced runs of salmon and sea trout entering the River Lune, the view has been expressed that there is a marked imbalance between net and rod catches, to the advantage of the former, when account is taken of the contribution to licence revenue of the two types of fishing and the numbers of fish shown in catch returns as having been taken.
3. At the last meeting of this Committee, on 5th July, 1976, it was resolved that the provisions of this Order applying in the Lune and Wyre estuaries be reviewed (Minute No. 33).
4. This resolution was brought before the Regional Committee at their meeting on 19th July, 1976, and considered together with a Petition submitted to the Ministry of Agriculture, Fisheries and Food by Mr. M. A. Taylor of Blackpool, signed by 275 salmon anglers in the Fylde area, which requested a review of the provisions of the Net Limitation Order applying in the Lune Estuary (Minute No. 9).

The Petitioners made the following points:-

- (i) Existing legislation to control netting on the estuary is inadequate, and should be reviewed. The obvious scarcity of salmon in the Lune during the 1975 netting season demonstrated that the "considerable powers" available to the Authority for fishery regulation, to which the Ministry had referred in their letter, are either not sufficiently effective or are not exercised adequately.
- (ii) Salmon anglers, collectively, contribute an appreciably greater amount of revenue in licence fees than netsmen, yet the latter, particularly during a dry summer, are able to extract a very large proportion of the returning stock in estuary nets. This situation is extremely unfair, and it would be interesting to know what justification could be put forward by the Ministry for allowing this situation - which no doubt is not unique to the Lune - to continue.

- (iii) Against the background of the serious decline of the Lune as a salmon fishery, effective action is urgently needed to arrest this decline and, hopefully, to restore the river to its former quality. A reduction in the present level of netting, which the Lune at present appears unable to support, would undoubtedly have a marked beneficial effect in this direction, whilst resulting in a more equitable balance between sporting and commercial interests.
5. If the number of applicants for netting licences of various types is not less than the number specified in the Net Limitation Order, the Authority is obliged to issue the full numbers of various licences specified in the Order.
6. The legislation requires the Authority, in connection with the issue of rod licences, to issue a licence to any applicant not disqualified from holding a licence, who tenders the correct licence duty. There is no provision for any limitation of the number of rod licences issued.
7. In addition to administering the Order, the Authority operates a hatchery at Middleton, near Sedbergh, which can accommodate up to one million salmon ova and up to 1.5 million sea trout ova. A substantial proportion of the salmon ova are returned as eyed ova or fry to the Lune system. Further, the Authority employs a bailiff force, many of them men of long experience, to supervise all forms of fishing on the river and estuary, and to control poaching and illegal fishing.
8. Any proposals for a variation of the Net Limitation Order to reduce the number of net licences must have regard to the powers and capability of the Authority to conserve and improve migratory fish stocks in the River Lune, and must take into account the steps already being taken. Any recommendations arising from such consideration would need to be:-
- (i) Within the provisions of the Salmon and Freshwater Fisheries Act, 1975.
 - (ii) Designed for the improvement of fisheries and not merely for the benefit of anglers on the river.
 - (iii) Supported generally by a substantial majority of opinion among the major angling Associations.
 - (iv) Supported by adequate and irrefutable evidence as to the adverse effect of netting on the fisheries which would, without question, be acceptable at any subsequent Public Inquiry.
9. Before considering the matter further, the Regional Committee asked for the observations and recommendations, if any, of the Local Committee.

10. In the interim period, consultations have taken place between the Regional Fisheries Officer, the Chairman of the Regional Committee and the Chairman of this Committee, and it is now proposed that any revision of the Order could best be undertaken by a Working Party comprised of representatives of all interested parties which would include:-

- (i) The Regional Fisheries Officer.
- (ii) The Area Fisheries Officer (North).
- (iii) An officer of the Authority's Legal Section.
- (iv) A representative of the Netsmens Association (representing net fishing interests).
- (v) A representative of the Lune and Wyre Fisheries Association (representing rod fishing interests).

11. Should the Committee accept this proposal, it is envisaged that the first meeting of the Working Party would take place as soon as possible.

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE

25TH OCTOBER, 1976

FISHERIES IN THE OWNERSHIP OF THE AUTHORITY

At the last meeting of the Regional Committee on 19th July, 1976 (Minute No. 4(e)(2)) the recommendations of this Committee regarding Fisheries in the Ownership of the Authority (Minute No. 30, of 5th July, 1976) were approved subject to (i) recommendation (2) of that Minute being amended to read:-

"That for the same period, match fishing on Sundays only from 1st November to 31st January (both dates inclusive) be permitted at a charge of 50p per peg per day on the Halton Fishery above Forge Weir."

and (ii) "To rights of access to the Halton Fishery being negotiated satisfactorily."

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERY ADVISORY COMMITTEE

25TH OCTOBER, 1976

REPORT BY THE AREA FISHERIES OFFICER
ON FISHERIES ACTIVITIES

1. Middleton Hatchery

Ova and fry development at Middleton Hatchery was again successful and no excessive mortalities in the stock occurred. The exceptionally high temperatures which prevailed at the time the fed fry were ready for planting out delayed the planting operations and fish had to be retained in the hatchery longer than usual. However, none of the stock suffered any ill effects as a result of this, and the following numbers were planted out:-

Northern Area

<u>SEA TROUT</u>	<u>Ova</u>	<u>Unfed</u> <u>Fry</u>	<u>Fed</u> <u>Fry</u>
Kent	46,000	20,000	4,000
Crake	14,000	8,000	-
Duddon	20,000	10,000	-
Leven	20,000	10,000	32,000
Keer	-	-	15,000

In addition Kent Anglers (claim regarding pollution) 75,000 unfed fry - River Kent

SALMON

Kent	22,400	-	5,000
Leven	-	-	5,000

BROWN TROUT (ex Ferry House in Windermere Feeders)

5,000	15,000	-
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Lune and Wyre

SALMON

Lune	124,750	154,000	135,000
Wyre	-	25,000	25,000

SEA TROUT

Conder	-	-	10,000
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2. Fish Monitoring

The following numbers of fish have been recorded at the monitoring stations in the area:-

Forge Weir Fish Monitoring Station

<u>Month</u>	<u>Fish Numbers (over 4 lbs)</u>
June	1,469
July	487
August	596
Total for year till 1st September	<u>2,552</u>

Haverthwaite Fish Monitoring Station

<u>Month</u>	<u>Fish Numbers (under 4 lbs)</u>	<u>Fish Numbers (over 4 lbs)</u>
May	10	6
June	9	14
July	658	153
August	348	45
Total for year till 1st September	<u>1,025</u>	<u>218</u>

Broadrairie Fish Monitoring Station

<u>Month</u>	<u>Fish Numbers (under 4 lbs)</u>	<u>Fish Numbers (over 4 lbs)</u>
May	15	0
June	165	455
July	733	774
August	42	8
Total for year till 1st September	<u>955</u>	<u>1,237</u>

Recent modifications at Broadrairie include a strip counter sited in the fish pass which records movement independently of the existing tube counter. The merits of the two systems will be compared for reliability. If the strip counter proves to be efficient in its present position, the tube will eventually be removed, thereby eliminating some of the gravel accretion problems which have occurred in recent years. Some problems have been experienced this season at Broadrairie due to fish lying within the counting tube and many spurious counts have been recorded. As this is a new phenomenon, it is considered that this was due to the extended period of high temperatures and low water conditions which may have encouraged fish to lie in the tube, seeking shade and a flow of water.

3. Fish Mortalities

<u>Location</u>	<u>Number</u>	<u>Species</u>	<u>Date</u>	<u>Cause</u>
River Wyre, Churchtown.	5	Chub	26.6.76	Possible keep net mortality
Lancaster Canal, Myerscough.	24	Roach	21.6.76	Not known

4. Poaching

Due to the small numbers of migratory fish present in the river system in this area, poaching has been at a lower level than in the last few years. Exceptions have been the Skerton area on the River Lune and the Kendal area on the River Kent. Reports on offences in the above areas have been received from the Bailiffing staff.

5. Coarse Fish Transfers

<u>From</u>	<u>To</u>	<u>Number</u>	<u>Species</u>	<u>Date</u>
Coniston Lake	Ponds in Barrow area	85	Pike	24.4.76 to 14.5.76
Wyre Hall Farm	Lodge at Chorley	1,755 3	Bream, Mirror Carp	6.6.76
Over Kellett (Pond)	Ponds in Lancaster area.	350	Roach, Bream, Tench	26.6.76

6. Operation of Newby Bridge Sluice

The Fishery Sluice at Newby Bridge was opened for the first time this year on 8th July at 17.05 hours. The flow from the sluice was fixed at 10 mgd and this flow was released until 19.05 hours on 15th July when the sluice was closed.

The sluice was re-opened at 15.25 hours on 12th August and a flow of 7 mgd was released. Subsequently, the level of the lake dropped below the crest of the weir and the release from the fishery sluice provided the whole flow of the river for some weeks. After rainfall had raised the level of the lake, the sluice was closed at 11.15 hours on 11th September.

7. Drought Conditions

Members will be aware of the adverse effect which the unusually prolonged dry spell has had on fishing. Temperatures, pH and dissolved oxygen levels in rivers and other fisheries have been maintained for long periods at near lethal limits. Many small feeder streams have dried out and in many more, flows have been reduced to a mere trickle.

So far as it is known, no mortalities in fish stocks in rivers have occurred which can be directly attributed to temperature, natural pH or dissolved oxygen levels. Fry populations, mainly those of non-migratory and migratory trout would perish in those streams which dried out. In those streams where some flow was maintained but the wetted area was considerably reduced, fish would be exposed to predation by birds.

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE

25TH OCTOBER, 1976

FISH MORTALITY - RIVER CONDOR
PROSECUTION OF OFFENDER

1. Proceedings against Mr. K. Drinkwater of Ellel, Nr. Galgate were heard on 27th September, 1976, at Lancaster Magistrates Court. Mr. Drinkwater pleaded guilty to a charge under Section 4 of the Salmon and Freshwater Fisheries Act, 1975, of causing disinfectant to flow from premises under his control into a tributary of the River Condor to such an extent as to cause the River Condor to be poisonous to fish. He was fined £200 and was ordered to pay Analyst's fees of £30 and an Advocate's fee of £20.
2. In mitigation on behalf of Mr. Drinkwater it was stated that his method of disposal of waste disinfectant, namely tipping onto an area of land which acted as a soakaway, had operated for a considerable time without any apparent problems. If he had been aware that this area of land was connected directly to the watercourse by an underground drain, he would not have tipped the disinfectant in that area.

NORTH WEST WATER AUTHORITY

LUNE, WYRE AND FURNESS
FISHERIES ADVISORY COMMITTEE

25TH OCTOBER, 1976

PERCH MORTALITIES - WINDERMERE

1. At the last meeting of the Regional Committee held on 19th July, 1976, it was resolved (Minute No. 4(e)(4)) "that a report be made to the Water Quality Panel on perch mortalities in Lake Windermere".
2. At the meeting of the Water Quality Panel on 6th September, 1976, following the consideration of this report concerning investigations carried out by the Freshwater Biological Association, the Ministry of Agriculture, Fisheries and Food, and the Authority's Area Fisheries Officer (Minute No. 5), it was concluded that the perch mortality was unlikely to have been caused by pollution. Research, however, is continuing.